

# THE STANDARDIZED NUTRITION CARE PROCESS FOR MALNUTRITION TODDLERS IN ENREKANG DISTRICT

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## ABSTRACT

*Under Nutrition is a condition as a result of inadequate food consumption in a long-time period which is characterized by weight for age (BB / U) which is in <-2 SD to> -3 SD WHO-Anthro standard table. The impact caused by undernutrition is that children become apathetic, impaired speech and impaired intelligence development. The general objective of this case study is to implement nutritional care for underweight toddler with the NCP approach in Pinang Village, Cendana, Enrekang District. This type of research is a descriptive study with a case study approach to nutrition care for toddler. The location of the study was conducted in Pinang Village, Cendana, Enrekang District in February-March 2019. The sample of the study was toddler. Data on nutrient intake was collected using the Food Recall method and then processed using the Nutrisurvey application. The results of the study obtained the nutritional status of the sample, namely malnutrition status, irregular eating patterns and being lazy to consume vegetables. After 14 days of observation, there was an increase in body weight and increased intake in the sample. It is recommended for families, especially mothers to be able to apply nutritional interventions that have been given during the process of nutrition care in the form of balanced feeding following the needs.*

**Keywords** : Toddler, Under Nutrition, Nutrition Care Process

## INTRUDUCTION

Nutritional problems are caused by direct factors and indirect factors. The direct factor consists of the level of consumption and the presence or absence of disease. And indirect factors include family food security, childcare, and environmental health. These three factors are related to the level of education, knowledge, skills of family members. Supariasa (2001) further argues that nutritional status is an expression of the state of balance in the form of certain variables.

Data from the Global Nutrition Report 2018 Indonesia is a country that still has complex nutritional problems. This is supported by the high prevalence of stunting 36.4%, and the prevalence of overweight 11.5%.

Data from Riskesdas in 2013 showed that Indonesia still had malnutrition

according to the BB / U index in South Sulawesi shows a prevalence of underweight as much as 25.6%, consisting of 6.6% malnutrition and 19.6% malnutrition. Compared with the provincial prevalence rate in 2007 (17.6%) and in 2010 (25.2%) it was seen to increase. Changes, especially in the prevalence of malnutrition, were from 12.5% in 2007, to 18.6% in 2010, and 19.6% in 2013 seemed to increase.

Data from the Nutritional Status Monitoring (PSG) survey in 2017 on the nutritional status of children in South Sulawesi Province showed a percentage of 76.0% and the percentage of malnourished children according to the BB / U index in Enrekang Regency in 2017 was 18.5% (RI Ministry of Health 2018).

Malnutrition in general (lack of quality and quantity) in children causes disruption of the process of growth and susceptibility to disease and less productive so that the need for nutrients must be fulfilled by taking into account physical activity and infection in toddler (Dodik, 2017).

The Standardized Nutrition Care Process is a systematic process of dealing with nutritional problems and will provide a high success rate. The purpose of nutrition care is to restore to good nutritional status by intervening in nutrition through education and counseling, the provision of appropriate dietetics for sequential samples starts from assessment, diagnosis, intervention, monitoring and evaluation of nutrition (Ministry of Health, 2018).

Based on data from 2019 Field Work Practices in Pinang Village, Cendana, Enrekang District, the percentage of malnutrition status of children aged 0-5 years is 12.5% (Polytechnic Department of Nutrition 2019).

Based on the above description of the important role of nutrient intake and its impact on the nutritional status of children, the authors are interested in researching nutrition care in malnourished children in Pinang, Cendana, Enrekang Regency.

**METHOD**

This research is a descriptive study. The location of the study was conducted in Pinang Village, Cendana, Enrekang Regency and the time of the study was conducted in December 2018 - June 2019.

**Amount and method of taking the subject**

Subjects that were used as cases of this study were toddler with malnutrition and randomly selected with the criteria of being underweight, classified as a child, and willing to be a research sample and not sick.

**Types and Methods of Data Collection**

Data used in this study are primary data, using a format that family includes sample identity, height (TB) , weight (BB) , food availability in the family and food intake of the subject.

**Processing and analysis of data**

Nutritional status data processing was carried out using the WHO-ANTHRO application, calculating nutrient intake using nutrisurvey . Furthermore, the data analysis was carried out descriptively by comparing the results obtained with the standard or the results of other studies presented in the form of tables and narratives.

**RESULTS**

Children aged 18 months getting breast milk until the age of 10 months are given complimentary breastfeeding at the age of 6 months in the form of SUN porridge, do not have allergies and food restrictions, are not routinely taken to the posyandu (once in 2-3 months) and p ola eating irregularly.

**1. Energy Consumption Level**

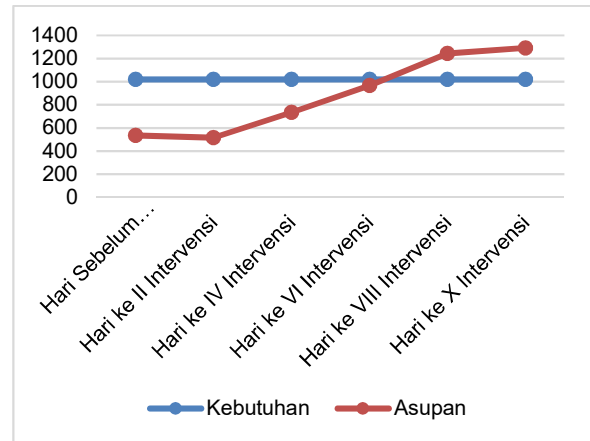


Figure 1. Energy Consumption Level

Based on Graph 1, the level of energy consumption of children before the intervention is still below the requirement, which is 536.5 kcal (52.6%), on the second day the intervention has decreased which is as much as 515.8 kcal (50.5%), the fourth intervention has increased namely intake 734.5 kcal (72.0%), on the sixth day the food intake intervention increased 967.9 kcal (94.8%), and on the eighth day there was an increase of 1242.9 kcal (119.3%), and on the day the ten intervention results had exceeded the need because the child's appetite had improved, namely 1291.5 kcal (126.6%).

**2. Level of Protein Consumption**

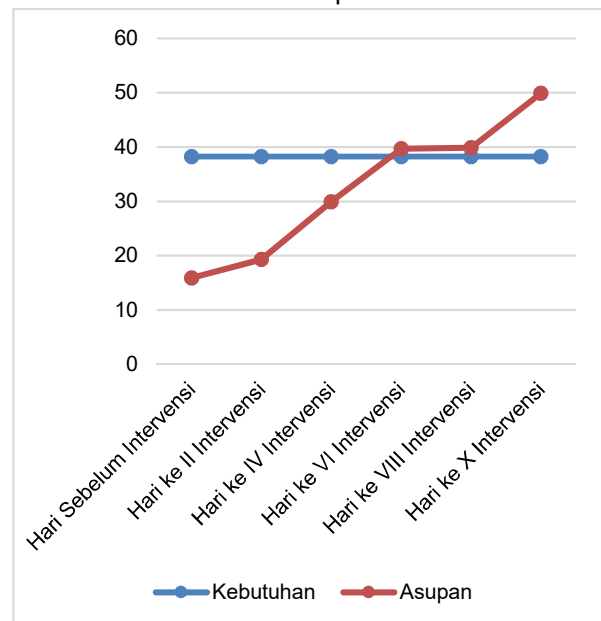


Figure 2. Protein Consumption Rate

Based on Graph 2 of the level of protein consumption of children, it can be seen that on the day before the intervention the protein intake of children was still below the requirement of 15.9 grams (41.5%), on the second day the intervention obtained 19.3 grams of intake (46.2%), the fourth day of the intervention experienced an increase of 29.9 grams (78.1%), on the sixth day the intake increased by 39.7 grams (103.7%), and on the eighth day there was an increase in intake of 39.9 grams (104, 3%), and on the tenth day of intervention the results of children's protein intake were above the requirement of 49.9 grams (130.4%).

### 3. Fat consumption level

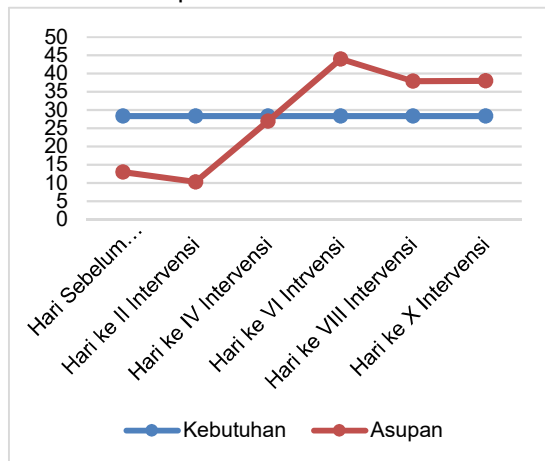


Figure 3 . Fat consumption level

Based on the graph of 3 levels of children's fat consumption, it can be seen that on the day before the intervention the fat intake was still below the requirement of 12.9 grams (45.7%), on the second day of the intervention there was an intake of 10.3 grams (36.3%), the fourth day the intervention experienced an increase of 26.9 grams (94.9%), on the sixth day the intake experienced an increase in intake exceeding the needs of the child which was 44 grams (155.3%), and on the eighth day it decreased by 40.9 grams (144, 3%), and on the tenth day of the intervention the intake results decreased intake of 38 grams (134.1%).

### 4. Carbohydrate consumption level

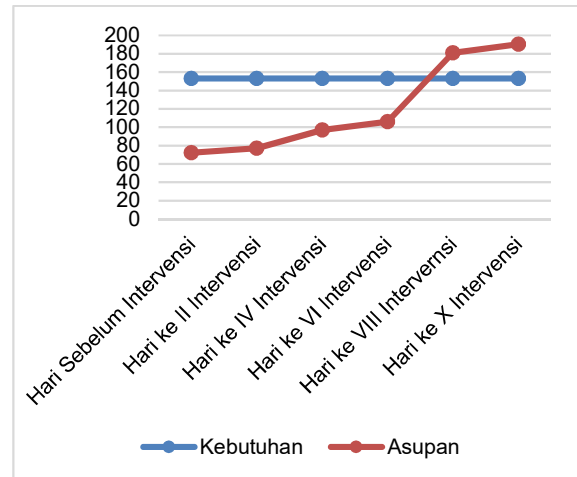


Figure 4. Carbohydrate consumption level

Based on the Graph 4 level of carbohydrate consumption of children, it can be seen that on the day before the intervention carbohydrate intake is still below the requirement of 72.2 grams (47.1%), on the second day of intervention there was an intake of 87.9 grams (50.3%), the fourth day the intervention experienced an increase in intake of 96.8 grams (63.2%), on the sixth day the intake intervention experienced an increase of 106 grams (69.2%), and on the eighth day the intervention continued to increase which was 180.8 grams (118.1%), and on the tenth day of intervention the intake results exceeded the requirement of 190.4 grams (124.4%).

## DISCUSSION

Case Study carried out in Pinang Village, Cendana, Enrekang District by observing 1 (one) child under five who had a malnutrition status. As we know, undernutrition is a condition as a result of inadequate food consumption in a long time which is characterized by body weight according to age (BB / U) which is at <-2 elementary to> -3 elementary school. The lack of adaptive nutrients is mild to severe. Much less nutrition occurs at less than 5 years of age (Adriani & Wirajatmadi 2012).

Safe and effective nutrition care by making systematic decisions, using critical thinking skills, specific in each step of the nutrition care process, using uniform terminology to document and communicate in every step of PAGT based on the latest nutritional science, so that high-quality nutritional care is achieved. The purpose of providing nutrition care is to restore to good

nutritional status by intervening in various causes. The Standardized Nutrition Care Process (PAGT) must be carried out sequentially starting from the assessment step, diagnosis, intervention and nutrition monitoring, and evaluation (ADIME).

Nutritional care process begins with an assessment, namely the collection of basic data for toddler by doing weight weighing and 24-hour recall to determine the intake before intervention, then the basic data is then made a diagnosis for the intervention plan, namely making a menu arrangement that varies according to need and counseling to increase the knowledge of child caregivers, the next step is the process of monitoring food intake and weight by monitoring intake using a 24-hour food recall method .

This research was conducted for fourteen days from February 24 to March 9, 2019, as well as taking anthropometric data and intake data. The type of diet given is the TKTP diet, in the form of ordinary food. Children who were sampled in this study were toddler with the age of 18 months of female sex with a malnutrition status (based on Z-Score).

In 1998 UNICEF analyzed the causes of malnutrition, where food was not balanced and health (infectious diseases) became the direct cause of malnutrition. This proves that nutritional status is closely related to intake and infectious diseases (Fanny, 2013).

In this study, a nutritional diagnosis was carried out by looking at anthropometry. Based on the results of the calculation, it was found that children weighing 7.7 kg, height 75.7 cm, and age 18 months. Calorie needs of 1020 kcal, 38.2 grams of protein, 28.3 grams of fat and 153 grams of carbohydrates.

Based on data on energy consumption levels in infants showing a change in energy consumption, the day before intervention found an intake of 536.5 kcal (52.6%) the second day of intervention there was a decrease in intake of 515.8 kcal (50.5%) due to food availability which was less than usual, and began to rise again on the fourth day of the intervention which was 734.5 kcal (72.0%) until the tenth day of the intervention which was 1291.5 kcal (126.6%) and exceeded the value of need.

Based on data on protein consumption levels in infants showed that there was an increase in protein

consumption that began to rise on the day before intervention 15.9 grams (41.5%), the second day of intervention was 19.3 grams (46.2%) until the tenth day of intervention, 49, 9 grams (130.4 %) and exceeding the value of this requirement because the portion of the menu arrangement given is consumed excessively such as eggs and fish.

Based on data on the level of fat consumption in children showed that there was a change in fat consumption in children, the day before the intervention found an intake of 12.9 grams (45.7%) the second day the intervention decreased intake of 10.3 grams (94.9%) and started rose again on the fourth day of the intervention which was 26.9 grams (94.9%) until the tenth day of the intervention which was 38 grams (134.1%) and exceeded the value of need.

Bredbenner 2009 and WHO 2010 Research The contribution of energy from fat should be around 35% in children aged 1-3 years, 30% at 4-18 years of age and 25% in adults. Improving the menu with the composition of fat energy is very important so that efforts to prevent chronic degenerative diseases can be achieved as early as possible.

Based on data on carbohydrate consumption levels in infants showed that there was an increase in carbohydrate consumption which began to rise on the day before intervention 72.2 grams (47.1%), the second day of intervention 87.9 grams (50.3%) until the tenth day of intervention ie 190, 4 grams (124.4%) and exceed the value of needs.

Nutrition intake of children from the beginning of the observation to the end of the observation shows that there is an increase in intake that is less than the intake of more than the needs of children. At the beginning of the observation it can be seen that the child's energy intake is still below the requirement of 536.5 kcal (52.60%), protein 15.9 grams (41.5%), fat 12.95 grams (45.71%), and carbohydrates 72.2 grams (47.18%). At the end of the observation, it can be seen that children's intake is 1291.5 kcal (126.6%), 49.9-gram protein (130.45%), 38.0-gram fat (134.13%), and carbohydrate 190.4 gram (124.4%).

Based on the results of the 2018 Fadhillah study on nutritional care for toddler for one week with nutritional education interventions, the intake was increased according to needs and weight gain. With

routine monitoring and evaluation as well as providing nutritional education about the knowledge of feeding to underweight toddler.

Based on the results of the development of observations from the beginning of the study to the end of the study, the child's condition is getting better because of an increased appetite. At the beginning of the data collection the child's weight was 7.7 kg with a category of malnutrition in the index BB / U and at the end of the observation had experienced an increase of 8.0 kg with the category still lacking nutritional status at the index BB/U.

### CONCLUSION

Nutritional assessment, in this case, is underweight children with Z-Score BB / U: -2, 53 SD. Diagnosis of nutritional deficiencies of oral intake of food and drinks associated with lack of appetite, malnutrition of real energy protein intakes related to less and dietary errors. The intervention is to provide a TKTP diet with energy requirements: 1020 kcal, protein: 38.2 grams, Fat: 28.3 grams, and carbohydrates: 153 grams. Monitoring carried out for 2 weeks, for food intake and increased weight from 7.7 kg to 8.0 kg.

### SUGGESTION

It is recommended for families, especially mothers of toddler, to be able to apply nutritional interventions that have been given during the process of nutrition care in the form of balanced feeding by the needs of toddler.

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